



UNITED STATES PATENT AND TRADEMARK OFFICE

H1

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,711	06/25/2003	Wayne M. Blackwell	FS-00887	9978
7055 7590 06/11/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER ADAMS, GREGORY W	
			ART UNIT 3652	PAPER NUMBER
			NOTIFICATION DATE 06/11/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/602,711
Filing Date: June 25, 2003
Appellant(s): BLACKWELL ET AL.

MAILED

JUN 11 2007

GROUP 3600

Andrew M. Calderon
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 13, 2007 appealing from the Office action mailed September 20, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

None.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,797,716

Herrin

8-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 2, it is unclear if the mail objects are being loaded into a bucket assembly or a container which is supported by a bucket assembly? If the latter is true, how do the sensors which are part of the bucket assembly register a fill capacity within a container which can block off photo-eye sensors?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-17, 19-22 & 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilde (US 4,875,327).

With respect to claims 1, 3, 4 & 16, Wilde discloses an actuator system 66 that moves a bucket assembly 10, 12, 14 between upright (FIG. 1), intermediate (C6/L58-

Art Unit: 3652

62) and full tilt (FIG. 2) positions, at least one sensor 130, 156 which detects whether a bucket assembly has reached a fill capacity at each of the upright positions, intermediate positions and full tilt positions, a feedback control system which controls bucket assembly indexing (indicated generally as 200). And, where "to settle" is defined as "to put into order; arrange or fix definitely as desired" (www.dictionary.com) Wilde discloses putting in order to prevent damage to packed parts. C1/L45-C2/L20. It is noted that one sensor only is required to sense a fill capacity at each of the three positions.

With respect to claim 5, Wilde discloses a safety sensor 158

With respect to claim 6 & 7, Wilde discloses an additional sensor 158 to sense an upright or down position.

With respect to claim 8, Wilde discloses a chute sensor 130.

With respect to claims 9 & 10, Wilde discloses a cradle assembly comprising a shaft 60 coupled to a mounting system 32.

With respect to claim 11, Wilde discloses lift ribs.

With respect to claim 12-15, Wilde discloses a hydraulic system, lift ribs, linkage system, and bucket assembly having a floor and rear wall.

With respect to claims 17 & 19-20, Wilde discloses a loading system comprising an induction mechanism, transporting system 16, 166, chutes 160b-c, bucket assembly 10b-c, 12b-c, 14b-c, 12b-c, one sensor, and feedback control system.

With respect to claim 21, Wilde discloses a method for loading packages comprising:

placing a container 22 in a first tilt position (C6/L33-69);
detecting when a container is full at the first tilt position;
indexing a container to an intermediate tilt position to enable settling contents;
detecting when a container is full at an intermediate tilt position; and
indexing a container to an upright position.

With respect to claim 24, Wilde discloses detecting problems and stopping loading.

With respect to claim 25, Wilde discloses a module 130 which detects when a container is full at a first, intermediate and upright positions, a module 156 which detects a container position (e.g. container position is upright and down, C6/L22), a module 200 which controls container movement based on container capacity.

With respect to claim 26, Wilde discloses a positional sensor 158.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 18 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilde in view of Herrin (US 5,797,716).

With respect to claim 2, Wilde does not disclose a sensor determining whether any container is properly positioned. Herrin discloses sensors 66, 67 "for sensing the entering and exiting of containers C therethrough" (C6/L56) to reduce manual labor

Art Unit: 3652

downtime. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wilde's apparatus to include a sensor determining whether a mail holding container is positioned within a bucket assembly, as per the teachings of Herrin, to reduce manual labor downtime.

With respect to claim 18, Wilde discloses a safety sensor 158, an upright and down sensor 156, and a chute sensor 130, and does not disclose a sensor for proper container positioning. Herrin discloses sensor 66, 67 determining whether a container is properly positioned (C6/L56) to reduce manual labor downtime. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wilde's apparatus to include a sensor to determine whether a container is properly positioned within a bucket assembly, as per the teachings of Herrin, to reduce manual labor downtime.

With respect to claim 23, Wilde does not disclose a step of detecting whether a containers is properly positioned prior to loading. Herrin discloses a step of detecting whether a container is properly positioned prior to loading (C6/L46-60) to control lifting of a container and reduce manual labor downtime. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Wilde to include a step of detecting whether a container is properly positioned, as per the teachings of Herrin, to control container lifting and reduce manual labor downtime.

(10) Response to Argument

A. 112, second paragraph, Rejection

Art Unit: 3652

The rejection is withdrawn.

B. Whether claims 1, 3-17, 19-22 & 24-26 are improperly rejected.

The following claim table is meant to assist in the analysis:

<u>Claims and Limitations on Appeal to the Board</u>	<u>Reference: Wilde</u>	<u>Reference: Herrin</u>
Claim 1		
bucket assembly	14, 50, 54 (C3/L41).	
actuator system moving a bucket assembly between upright, intermediate and full tilt positions	66, 150; (C3/L60). Wilde's bucket assembly rotates between 0 degrees and approx. 80 degrees (FIG. 1), and at least an upright position (C1/L56; C7/L5), intermediate position (C1/L53) and full tilt (C1/L46).	
one sensor that detects fill capacity at upright, intermediate and full tilt positions	130 (C5/L45). Wilde's sensor 130 senses back-up from a container being filled at all times while bucket assembly is rotating.	
feedback control system which controls indexing	FIG. 10.	
wherein intermediate position permits objects to settle	C1/L30-40.	
Claim 17		
induction mechanism	16	
chute	78	
bucket assembly	14, 50, 54 (C3/L41).	
actuator assembly moving a bucket between upright, intermediate and another tilt positions	66, 150; (C3/L60). Wilde's bucket assembly rotates between 0 degrees and approx. 80 degrees (FIG. 1), and at least an upright position	

Art Unit: 3652

	(C1/L56; C7/L5), intermediate position (C1/L53) and full tilt (C1/L46).	
sensor that detects whether the bucket assembly has reached a fill capacity at upright, intermediate and another tilt positions	130 (C5/L45). Wilde's sensor 130 senses back-up from a container being filled at all times while bucket assembly is rotating.	
feedback control system	FIG. 10.	
Claim 21		
placing a container in a first tilt position	C6/L35.	
detecting when a container is full at a first tilt position	C6/L56.	
indexing a container to an intermediate tilt position to enable settling of contents within the container	C6/L59.	
detecting when a container is full at the intermediate tilt position	C6/L56.	
indexing the container to an upright position	C6/L59.	
Claim 25		
a module which detects when a container is full at a first tilt position, an intermediate tilt position and upright position	FIG. 10.	
module which detects a position of a container	FIG. 10.	
module which controls a movement of the container based at least on a capacity of the container	FIG. 10.	

Claim 5		
safety sensor	156. Safety is defined as prohibiting bucket assembly over rotation during filling. C6/L13.	
Claim 8		
chute sensor	130	
Claims 14 & 15		
Floor assembly Rear wall coplanar surface	Floor 50; rear wall coplanar surface 52 and rear wall other coplanar surface 58.	
Claim 16		
positional feedback system	FIG. 10.	
Claim 19		
positional feedback system	FIG. 10.	
Claim 20		
position sensors	156 is a position sensor as it senses the position of a bucket assembly prior to over rotation.	
Claim 22		
detecting when the container has reached full capacity in the upright position and removing the container	130 (C5/L45). Wilde's sensor 130 senses back-up from a container being filled at all times while bucket assembly is rotating.	

Claims 1, 17, 21-22 & 25

With respect to claims 1, 17 & 21-22, "fill capacity" is not defined within the claims. Instead, Appellants specification refers to fill capacity at page 4, lines 3 and 18, page 5, line 24, page 7, line 5, page 11, lines 22-28 and page 12, lines 2 & 3. However, none of these references defines "fill capacity" as a quantity or defines it relative to a

container capacity. Thus, "fill capacity" is an arbitrary, user defined amount that is interpreted as either 1) filling a container until it physically cannot hold any more items, or 2) filling a container to a prescribed limit. Both definitions are reasonably interpreted from claims 1, 17, 21-22 & 25. In fact, it is the latter that finds support in the prior art. In this case Wilde defines fill capacity as a prescribed row limit equal to a function of container size divided by product size. Wilde builds layers because during the loading of electronic parts it is better to slowly build layers rather than dump them all in at once. C1/L10-40. This prevents damage to the parts. It will inherently also allows parts to settle under the force of gravity.

Wilde's sensor 130 records a fill capacity by detecting when a container is full. Wilde discloses that as product flows into a container the flow will stop once the layer is completed and no more parts can flow into the container. C2/L1-20. Only if the container is not at a fill capacity will product flow restart (C2/L1-20; C6/L35-50). Wilde discloses that "when sensor 130 detects back-up of parts that lasts for the preselected time interval cylinder 66 lowers container support 14 until sensor 130 no longer detects a parts back-up. Container support 14 is thereof lowered just until the parts back-up is cleared, resulting in little or no drop from discharge end 75 to the accumulated parts." C6/L1-8. Appellant defines detecting a fill capacity as blocking a photo-cell. (See Appellants specification page 7, line 10-11). Wilde's sensor 130 is clearly a photo-eye that requires blocking for a positive signal.

Wilde further discloses the ability to fill at more than three positions as Wilde's apparatus can index through approximately 80 positions, e.g. 80 degrees along an arc.

Art Unit: 3652

C6/L58-62. Wilde discloses several positions including upright (e.g. 80-degrees), tilt (less than 80 degrees) and intermediate (less than tilt position). Assuming arguendo that Appellant is correct in alleging that Wilde does not disclose filling a container when a container is at a 90-degree vertical position (although not claimed this condition is defined when container walls form a 90-degree angle with a supporting surface). First, the ability to fill at upright, intermediate tilt, and full tilt positions are merely positions along a 90-degree rotational arc of which there could be a myriad of positions, and 2) merely because Wilde discloses an operator indexing a container from the "upright" which Wilde defines as the 90-degree vertical position does not preclude filling at a 90-degree vertical position. Thus, Wilde's indexing allows a myriad of positions, not merely an upright, intermediate and full tilt.

It is irrelevant whether an operator manually indexes a container prior to loading as claims 1, 17 & 21-22 do not recite a particular angle of orientation. Claims 1, 17 & 21-22 merely recite three positions relative to each other: an upright position is not the same as intermediate tilt or full tilt positions, an intermediate is not the same as a full position and so on. However, this is not the same as an angle in degrees as Appellant alleges. For example, Appellant could have defined an upright position as horizontal orientation at 0 degrees of rotation, could have defined intermediate tilt as 45-degrees of rotation, and could have defined full tilt as 80-degrees of rotation, but did not. If Appellant had claimed particular angular orientation, Wilde's FIGS. 1-3 disclose an infinite number of filling positions during rotation from 0 to approximately 80 degrees, and further discloses the ability to incrementally index and fill between the two

Art Unit: 3652

extremes. Thus, Wilde not only discloses filling at upright, intermediate tilt and full tilt positions, but also discloses a myriad of filling positions in between as required in claims 1, 17, 21-22.

Claim 5

Wilde discloses a safety sensor 156, 158 where safety is defined as prohibiting bucket assembly over rotation during filling. C6/L13. Wilde's safety condition exists because a container cannot be removed without the container being in the fully down condition as indicated by safety sensor 158. Appellant argues that this is not a safe condition, but does not define what a safe condition is. Thus, any condition that prevents a fault is a safe condition. And, Wilde's sensors 156, 158 shut down (C6/L13) indexing drive to prevent over rotation such that too much rotation inherently results in machine breakage and personal injury.

Claim 8

Wilde discloses a chute sensor of claim 8 because Wilde's sensor 130 is located on a chute. Appellant argues that one sensor cannot be both a chute sensor and a fill capacity sensor. Wilde resolves this through a circuit in FIG. 10 which discloses a chute sensor 130 which detects both a fill capacity (C5L45) which indexes a bucket and a chute sensor that stops flow until a bucket is indexed.

Claims 14 & 15

Appellant argues that the limitations of claims 14 & 15 are not disclosed in the cited prior art. Wilde discloses a bucket assembly of claims 14 & 15 because Wilde's

Art Unit: 3652

floor 50, rear wall coplanar surface 52 and rear wall *other* coplanar surface 58 comprise a bucket 14. See FIG. 2 reproduced below.

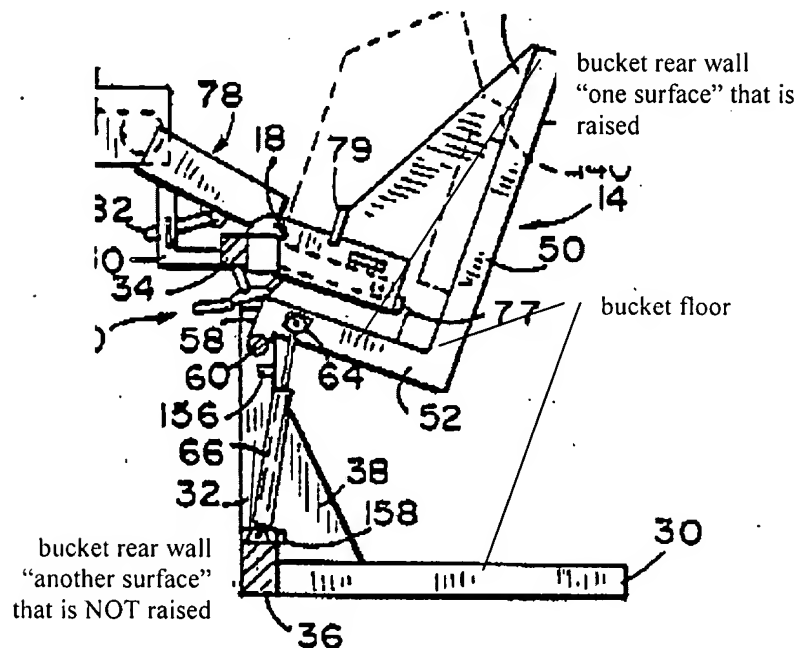


FIG. 2

Claims 16, 19 & 20.

Appellant argues that the limitations of claims 16, 19 & 20 are not disclosed in the cited prior art. Wilde discloses a positional feedback system of claims 16, 19 & 20 because Wilde's system automatically senses back-up status and consequently indexes a bucket assembly 12 with position sensors 156. C6/L50-64.

Claim 25.

Wilde's FIG. 10 discloses:

a module 130 which detects when a container is full at a first tilt position, an intermediate tilt position and an upright position,

a module 210 which detects a position of a container, and

a module 201 which controls movement of a container based on capacity of a container.

Appellant argues that the initial operation by an operator to tilt a bucket assembly holding a container is “hardly suggestive of detecting when a container is full at each of a first tilt position, an intermediate tilt position an upright position.” Appellants Brief, page 15-16. While not entirely clear this is presumably directed at the three fill positions recited in claim 25, lines 2-3. Taking Appellants arguments as true Wilde discloses a first tilt position equates to 80 degrees (FIG. 1), an intermediate tilt position (something less than 80 degrees), and an upright position at 1 degrees (FIG. 3).

As in claims 1, 17 & 21-22 addressed above claim 25 does not define any of the three positions with angular accuracy. Wilde discloses a myriad of angular fill positions within the approximately 80-degree arc disclosed between FIGS 1 & 3. As in claims 1, 17 & 21-22 above, the fill capacity is established by placing a row in a container until the container row can handle no more indicated by a back-up condition at sensor 130. Whereupon the container will index only until more product begins to flow. Thus, Wilde discloses the claims and limitations of claim 25.

C. Whether claims 2, 18 & 23 are improperly rejected.

The following claim table is meant to assist in the analysis:

<u>Claims and Limitations on Appeal</u> <u>to the Board</u>	<u>Reference: Wilde</u>	<u>Reference:</u> <u>Herrin</u>
Claim 2		
sensor to sense proper positioning of a container	Not disclosed.	66, 67; C6/L56.

Claim 18		
sensor to sense proper positioning of a container	Not disclosed.	66, 67; C6/L56.
Claim 23		
detecting whether the container is properly positioned prior to loading the container with the content	Not disclosed.	66, 67; C6/L56.

Appellant argues the Herrin's apparatus does not detect proper position.

Appellant does not define "proper position", but Herrin does. Herrin defines proper position as that position that is acceptable to loading. For example, if sensors 66-67 do not detect a container, there is no lifting and subsequently loading of a container.

(C6/L46-60) If they do detect a container filling can commence. Thus, Herrin defines proper position as that position that is proper for filling. C6/L56.

Appellants arguments with respect to determining whether any variable sized mail holding container is properly position is found in Herrin. Herring detects a container passing, e.g. any blockage is enough. Thus, Herrin's proper position is functional for any size container just so long as the container blocks the sensor 66-67 which a skilled artisan would know is true of any container big or small. Appellants arguments that Herrin does not cure the Wilde's deficiencies with respect to sensing fill capacity at three positions are irrelevant as the arguments above clearly show Wilde meets the claims and limitations.

Art Unit: 3652

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Gregory W. Adams

Conferees:

Meredith Petravick, Appeal Specialist



Gene Crawford, SPE AU 3651



GENE Q. CRAWFORD
SUPERVISORY PATENT EXAMINER